

**RDAST**

**Task 4 - Sensor Data Comparison  
Image Examples**



253860-5-F

31 March 1994

# **RETRIEVAL, DISPLAY, AND ANALYSIS TOOL FOR EARTH IMAGERY**

## **Task 4: Sensor Data Comparison**

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**TASK OBJECTIVE:** To Demonstrate the Utility of Using Space-Based and Airborne Sensors to Exploit Image data Using Information Extraction and Sensor Fusion Techniques

## Commercially Available Satellite Data

- SPOT (XS and Pan)
- Landsat (MSS and TM)
- AVHRR (LAC and GAC)
- JERS-1 (Optical and Microwave)
- ERS-1
- CZCS
- KFA (image or digital)

## Other Sources of Image Data

- Airborne Multispectral Scanners (M7)
- Airborne Imaging RADAR Sensors  
(IFSARE)
- Aerial Photography

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## **Obtainable Ancillary Data**

- Large Scale Topographic Maps
- Digital Elevation Models
- Digital Chart of the World (DCW)
- Scanned Navigational Charts

## **RDAST Test Sites**

- Ann Arbor and Environs (Agriculture, Urban Growth)
- Chambéry, France (Mountainous Environment)
- Baghdad, Iraq (Arid Environment)



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## **Ann Arbor Site**

- Local, Easy Access to Ancillary Data
- ERIM Data Archive Contains Multi-Sensor/Multi-Date Coverage
- "Easy" Environment to Work In
- Some Sensor Fusion Accomplished

## Chambéry, France Site

- Easy access to ancillary data through  
UNISFERE
- ERIM Data Archive Contains Multi-Sensor Coverage (MSS and TM)
- "Difficult" Environment to Work In  
(rugged terrain, Foreign Country,  
etc.)

## Baghdad, Iraq Site

- Difficult to Obtain Ancillary Data
- ERIM Data Archive Contains Multi-Date Coverage (TM)
- Arid Environment Significantly Different than Temperate

## Information Products Generated During Task 4 Activities

- Populate Portions of the Data Base (Task 1) With Examples of Commercially Available Data
- Example of a Landsat MSS, TM and SPOT Image Map for Each Site at a Variety of Scales (“typical” scale, largest practical scale)
- Perspective View Flythrough Loop for Chambéry Site
- Examples of Other Image-Derived Products: Data Fusion Examples, Change Detection, Terrain Categorization, Spot-Sharpened TM, etc.